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(FILE 'USPAT' ENTERED AT 13:41:41 ON 28 AUG 96)

L1 4 S 5404450/PN OR 5517423/PN OR 5495239/PN OR 5345409/PN  
L2 5 S 5455688/PN OR 5349673/PN OR 5504669/PN OR 5421018/PN OR  
551  
L3 1 S 5504669/PN  
L4 9 S L1 OR L2 OR L3  
L5 86878 S PROCESS!R  
L6 1 S 5160926/PN  
L7 532 S PROTECTIVE RELAY  
L8 130889 S METER  
L9 2329 S (MULTI PORT) OR (MULTI PORT)  
L10 265759 S COMMUNICATION  
L11 4706 S L10 (3A) L5  
L12 6 S L9 (5A) L11  
L13 604 S L10 (W) L5  
L14 1364 S (QUARTS) OR (QUAD UNIVERSAL ASYNCHRONOUS RECEIVER TRANSM  
ITT  
L15 67066 S MICROPROCESS!R  
L16 314 S COMMAND LOGIC  
L17 85 S (IRIG) OR (IRIG B)  
L18 96 S IED  
L19 0 S IED (P) INTELLIGENT ELECTRONIC  
L20 0 S IED AND INTELLIGENT ELECTRONIC  
L21 1625 S SUBSTATION  
L22 43 S INTELLIGENT ELECTRONIC  
L23 0 S IED PORT  
L24 1 S L11 AND L4  
L25 5 S L5 AND L4  
L26 0 S L7 AND L4  
L27 8 S L11 AND L7  
L28 0 S L7 (P) L4  
L29 0 S L11 AND L14  
L30 0 S L7 AND L14  
L31 0 S L22 AND L14  
L32 2 S L14 AND L21  
L33 16 S L11 (P) L9  
L34 0 S L7 AND L33  
L35 0 S L14 AND L33  
L36 0 S L16 AND L33  
L37 0 S L18 AND L33  
L38 0 S L21 AND L33  
L39 0 S L22 AND L33  
L40 0 S L17 AND L33  
L41 0 S L8 AND L33  
L42 8 S L15 AND L33

L43 11 S ZOCHOLL, ?/IN  
L44 11 S ZOCHOLL, S?/IN  
L45 28 S GUZMAN, A?/IN  
L46 3 S GUZMAN, AR?/IN  
L47 0 S HOU, DAQ?/IN  
L48 12 S HOU, D?/IN  
L49 1 S HOU, DA?/IN  
L50 0 S POGGI, E?/IN  
L51 19 S POGGI, ?/IN  
L52 32 S ROBERTS, JEFF?/IN  
L53 5 S ROBERTS, JEFFREY B./IN  
L54 21 S L15 AND L17  
L55 3 S L15 (P) L17  
L56 0 S L54 AND L21  
L57 0 S L7 AND L17  
L58 0 S L18 AND L17  
L59 0 S L18 AND L21  
L60 10 S L18 AND L15  
L61 22 S L10 AND L18  
L62 0 S L22 AND (L43 OR L53)  
L63 0 S L18 AND (L43 OR L53)  
L64 0 S L17 AND (L43 OR L53)  
L65 0 S L14 AND L7  
L66 0 S L14 AND L22  
L67 0 S L7 AND L22  
L68 66 S L21 AND L7  
L69 0 S L68 AND L14  
L70 0 S L68 AND L22  
L71 11 S L15 AND L68

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## downloaded tasks

3	5,343,319	Aug 30 1994 Jun 14 1993	<u>359/152</u>	Apparatus for adapting an electrical <b>communications</b> port to an optical <b>communications</b> port
4	5,396,630	Mar 7 1995 Oct 6 1992	<u>395/700</u>	Method and <b>system</b> for object management across process boundaries in a data processing <b>system</b>
5	5,390,081	Feb 14 1995 Mar 22 1993	<u>361/775</u>	Fault-tolerant <b>power</b> distribution <b>system</b> for rack-mounted hardware
6	5,519,880	May 21 1996 Sep 26 1994	<u>395/800</u>	Parallel processing <b>system</b> and data transfer method which reduces bus contention by use of data <b>relays</b> having plurality of buffers
7	5,388,220	Feb 7 1995 Mar 18 1992	<u>395/800</u>	Parallel processing <b>system</b> and data transfer method which reduces bus contention by use of data <b>relays</b> having plurality of buffers
8	5,535,334	Jul 9 1996 Jun 6 1995	<u>395/200.15</u>	Fault-tolerant system-to-system <b>communications system</b> and method utilizing multiple <b>communications</b> methods to transfer a single message
9	5,276,898	Jan 4 1994 Jul 26 1990	<u>395/800</u>	<b>System</b> for selectively compressing data frames based upon a current <b>processor</b> work load identifying whether the <b>processor</b> is too busy to perform the compression
Status: certificate of correction has been issued				
10	5,457,786	Oct 10 1995 Dec 30 1993	<u>395/280</u>	Serial data interface with circular buffer

11	5,517,423	May 14 1996 Jan 11 1994	<u>364/492</u>	Power distribution <b>system</b> control network
12	5,546,444	Aug 13 1996 Mar 11 1994	<u>379/59</u>	Methods and apparatus for communicating data via a cellular network control channel
13	5,495,239	Feb 27 1996 Aug 2 1994	<u>340/870.02</u>	Method and apparatus for communicating with a plurality of electrical metering devices and a <b>system</b> control center with a mobile node
14	5,428,638	Jun 27 1995 Aug 5 1993	<u>315/224</u>	Method and apparatus for reducing <b>power</b> consumption in digital <b>communications</b> devices
15	5,526,401	Jun 11 1996 Oct 31 1994	<u>379/59</u>	Methods and apparatus for acknowledging a paging message via a cellular network control channel
16	5,297,260	Mar 22 1994 Jan 7 1991	<u>395/293</u>	<b>Processor</b> having a plurality of CPUS with one CPU being normally connected to common bus
17	5,331,136	Jul 19 1994 Jun 4 1993	<u>235/375</u>	Hand-held data capture <b>system</b> with interchangeable modules
18	5,345,409	Sep 6 1994 Mar 25 1993	<u>364/736</u>	Programmable digital signal <b>processor system</b> for processing electrical <b>power</b> signals
19	5,511,069	Apr 23 1996 Jun 30 1994	<u>370/24</u>	Method and apparatus for controlling a communication device through a modem <b>processor</b>
20	5,404,515	Apr 4 1995 Apr 30 1992	<u>395/650</u>	Balancing of <b>communications</b> transport connections over multiple central processing units

21	5,319,775	Jun 7 1994 Jul 22 1991	<u>395/183.07</u>	Centralized diagnostic <b>system</b> for loosely coupled processors
22	5,329,431	Jul 12 1994 Sep 14 1993	<u>362/85</u>	Computer controlled lighting <b>system</b> with modular control resources  Status: certificate of correction has been issued
23	5,487,153	Jan 23 1996 Jun 24 1994	<u>395/250</u>	Neural network sequencer and interface apparatus
24	5,465,081	Nov 7 1995 Oct 6 1992	<u>340/825.05</u>	Multicomponent wireless <b>system</b> with periodic shutdown of transmitting and receiving modes
25	5,423,007	Jun 6 1995 Dec 4 1991	<u>395/309</u>	Multiprocessor computer <b>system</b> having improved coupling arrangement for independently operating local <b>processor</b> systems

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## CUSTOMER REQUEST SUMMARY

## Your request was:

☐ Product Code:

E081

☐ Keyword list:

protective relays electronic device intelligent electronic device  
microprocessor power system database power system multi-port  
communications processor multi-port processor

☐ Text:

Communication processor apparatus for integrating communications between electronic devices having data communication. Electronic devices include protective relays, meters, terminal devices, and a computer. Protective relays are microprocessor based and referred to as digital relays or computer relays. Information is stored in the memory of the relay. Database capability and ability to process information received from intelligent electronic device.

E081 SUBJECT SEARCH LIST REPORT - 1994 to PRESENT  
DATA

## Top 3 Classes:

Class: <u>395/800</u>	Frequency: 3
Class: <u>395/750</u>	Frequency: 2
Class: <u>235/380</u>	Frequency: 2

## Top closest patents:

Ref	Patent Id	Issue/File	Class	Title
1	5,455,687	Oct 3 1995 Aug 5 1992	<u>358/438</u>	Method for transferring data between <b>electronic</b> filing systems using facsimile communications protocol
2	5,421,018	May 30 1995 Nov 6 1992	<u>395/800</u>	Data communication method and apparatus having improved control

over a detachable terminal  
device

3	5,288,978	Feb 22 1994 Oct 2 1991	<u>235/380</u>	Mutual authentication <b>system</b> and method which checks the authenticity of a <b>device</b> before transmitting authentication data to the <b>device</b>
4	5,511,069	Apr 23 1996 Jun 30 1994	<u>370/24</u>	Method and apparatus for controlling a communication <b>device</b> through a modem <b>processor</b>
5	5,412,805	May 2 1995 Aug 3 1992	<u>395/600</u>	Apparatus and method for efficiently allocating memory to reconstruct a data structure
6	5,473,146	Dec 5 1995 Apr 4 1994	<u>235/383</u>	<b>System</b> and method for connecting product information with <b>electronic</b> shelf displays
7	5,495,239	Feb 27 1996 Aug 2 1994	<u>340/870.02</u>	Method and apparatus for communicating with a plurality of electrical metering devices and a <b>system</b> control center with a mobile node
8	5,493,105	Feb 20 1996 Apr 19 1994	<u>235/375</u>	<b>Electronic</b> business card <b>system</b>
9	5,424,903	Jun 13 1995 Jan 12 1993	<u>361/166</u>	<b>Intelligent</b> power switcher
10	5,461,705	Oct 24 1995 May 15 1992	<u>395/115</u>	Information processing <b>device</b> in an <b>electronic</b> apparatus utilizing an accessory control <b>device</b> and methods of application
11	5,519,880	May 21 1996 Sep 26 1994	<u>395/800</u>	Parallel processing <b>system</b> and data transfer method which reduces bus contention by use of data

**relays** having plurality of buffers

12	5,548,753	Aug 20 1996 Sep 14 1994	<u>395/600</u>	Automatic <b>electronic</b> mail notification of <b>database</b> events
13	5,381,478	Jan 10 1995 Feb 6 1992	<u>380/49</u>	Cipher communication <b>system</b> for transaction data
14	5,388,220	Feb 7 1995 Mar 18 1992	<u>395/800</u>	Parallel processing <b>system</b> and data transfer method which reduces bus contention by use of data <b>relays</b> having plurality of buffers
15	5,293,250	Mar 8 1994 Mar 11 1992	<u>358/402</u>	A <b>system</b> for notifying a destination terminal that <b>electronic</b> mail has reached a host computer
16	5,311,595	May 10 1994 Nov 5 1991	<u>380/25</u>	Method of transferring data, between computer systems using <b>electronic</b> cards
Status: certificate of correction has been issued				
17	5,448,721	Sep 5 1995 Jan 14 1993	<u>371/20.1</u>	Duplicated <b>communications</b> processing <b>system</b> and <b>communications system</b> including the duplicated <b>communications</b> processing <b>system</b>
18	5,377,326	Dec 27 1994 Jun 22 1993	<u>395/200.01</u>	<b>Electronic</b> apparatus with remote data supplementation/update selection and error display
19	5,504,669	Apr 2 1996 Jul 7 1992	<u>364/134</u>	Information processing <b>device</b> and accessory control <b>device</b>
20	5,461,662	Oct 24 1995 Aug 10 1993	<u>379/9</u>	<b>Electronic</b> exchange apparatus



21	5,473,143	Dec 5 1995 Oct 4 1993	<u>235/380</u>	ATM/POS based <b>electronic mail system</b>
22	5,343,319	Aug 30 1994 Jun 14 1993	<u>359/152</u>	Apparatus for adapting an electrical <b>communications</b> port to an optical <b>communications</b> port
23	5,455,466	Oct 3 1995 Jul 29 1993	<u>307/104</u>	Inductive coupling <b>system</b> for <b>power</b> and data transfer
24	5,410,713	Apr 25 1995 Jan 2 1992	<u>395/750</u>	Power-management <b>system</b> for a computer
25	5,437,040	Jul 25 1995 Jan 31 1994	<u>395/750</u>	<b>Electronic system</b> with variable threshold <b>power</b> failure signaling

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